REMARKS

Favorable reconsideration and allowance of the present patent application are respectfully requested in view of the foregoing amendments and the following remarks. Claims 1-25, 27, 29, 31 and 33-36 are pending in the present application. Claims 1, 7, 13 and 19 are independent claims.

Specification Objection

The Specification has been objected to for allegedly failing to support the claim limitation "evaluating the stream of media to identify the one or more silence frames". Applicant traverses this objection.

Applicant submits that the "evaluating" aspect is disclosed with respect to multiple embodiments that are disclosed in Applicant's Specification. For example, Paragraph [0041] states:

> ... In one embodiment, the silence frame that follows a first predetermined number of silence frames following a first media frame and precedes a second predetermined number of silence frame preceding a media frame subsequent to the first media frame is suppressed.

Paragraph [0047] states:

> [0047] When the silence frame J following four silence frames F, G, H, and I is received, as shown by 734, silence frame H is punctured, because the predetermined number of silence frames separating media frames 6 and 7, e.g., F, G, I and J, are kept in the buffer for transmission to the target CD...

Numerous additional examples are present in the Specification, which Applicant omits here for the sake of brevity. Essentially, embodiments in the Specification describe selectively suppressing silence frames or not suppressing silence frames, for example, based on how many successive silence frames are present. This could not be achieved unless the silence frames were identified, otherwise the silence-frame suppression process would essentially be operating blindly and could not verify correct operation.

This actually illustrates the problem with the primary reference of Yao. Yao clearly does not identify individual silence frames, but rather attacks poor channel quality in a different manner with a probabilistic approach that does not require an evaluation of any particular frame.

In any case, there is abundant support for this claimed aspect throughout the Specification. Applicant had believed this feature to already be present in the claims inherently and only amended this subject matter into the claims to clarify a distinction over Yao.

As stated in MPEP § 216.07(a), by disclosing in a patent application a device that inherently performs a function or has a property, operates according to a theory or has an advantage, a patent application necessarily discloses that function, theory or advantage, even though it says nothing explicit concerning it. The application may later be amended to recite the function, theory or advantage without introducing prohibited new matter. In re Reynolds, 443 F.2d 384, 170 USPQ 94 (CCPA 1971), In re Smythe, 480 F. 2d 1376, 178 USPQ 279 (CCPA 1973).

Accordingly, Applicant respectfully requests that the Examiner withdraw this objection.

35 U.S.C. §101 Rejection

Claims 7-12 and 34 are rejected under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter. By the present Amendment, claim 7 now recites "A computer-readable storage medium embodying a set of instructions, which, when executed by a processor, cause the processor to perform the set of instructions, the set of instructions comprising". A computer-readable storage medium as claimed cannot read on a stand-alone signal, nor upon 'energy'. Thus, the Examiner's concerns have been addressed by this Amendment. Applicant respectfully requests that the Examiner withdraw this rejection.

35 U.S.C. §102(e) Yao

Claims 1-25, 27, 29, 31 and 33-36 are rejected under 35 U.S.C. § 102(e) as being anticipated by Yao. Applicant respectfully traverses this art grounds of rejection.

1.   Remarks related to the Examiner's Response to Arguments section in the 3/5/2009 Office Action

The Examiner alleges that "Yao discloses determining communication channel quality and improving channel quality by measuring channel error rates, decreasing channel error rate, dropping silence frame at predetermined rate, and improving latency" (e.g., see Page 2 of the 3/5/2009 Office Action). With regard to this statement, Applicant notes that Yao does not actually disclose dropping "silence" frames at a predetermined rate, but rather simply discloses dropping frames (which may be silence frames or data frames) at a predetermined rate. This aspect is discussed in more detail below.

From the above-noted statement, the Examiner concludes that Yao discloses "evaluating the stream of media to identify the one or more silence frames" (e.g., see Pages 2-3 of the 3/5/2009 Office Action). This is an inaccurate statement, as will be discussed in more detail below. In particular, Yao measures channel quality and then drops frames at a predetermined rate. However, no frame is ever analyzed in Yao and determined to be a silence frame. If the Examiner disagrees with this statement, the Examiner is requested to point out where Yao specifically classifies a frame that is dropped **as a silence frame**. Applicant has reviewed the section cited to by the Examiner for this aspect, but cannot find any teaching to this effect at Col. 16, line 49 to Col. 18, line 21 of Yao.

The Examiner further states that "Yao clearly discloses that dropping silence frame at rate of 1 frame dropped per hundred frames" (e.g., see Page 3 of the 3/5/2009 Office Action). This

alleged teaching in particular is discussed in more detail below, and is clearly incorrect. While discussed in more detail below, while the Examiner suggests that Yao is dropping silence frames at a rate of 1 out of every 100 frames, this is simply not what Yao is doing. Yao is dropping frames at a fixed rate. There is no guarantee the frames that are dropped are silence frames. Therefore, it is incorrect to infer that the dropped frames are silence frames. If there is something wrong with Applicant's logic, the Examiner is requested to point out the Applicant's error.

2. Yao fails to disclose or suggest automatically suppressing silence frames because Yao teaches frame-dropping at a fixed, predetermined rate without evaluating whether a frame is a silence frame

Independent claim 1 recites in part "evaluating the stream of media to identify the one or more silence frames" and "automatically suppressing the one or more identified silence frames from the received stream of media". This limitation is similarly recited in independent claims 7, 13 and 19. Silence frames correspond to frames (e.g., in an audio or voice communication) that do not actually include information or data (e.g., see [0002] of the Specification). As will now be explained, the manner in which Yao drops frames is not consistent with a reasonable interpretation of this claim limitation.

Yao is directed to a method and apparatus for voice latency reduction in a voice-over-data wireless communication system (See Yao, Title and Abstract). With respect to Figure 8 of Yao, Yao teaches (i) analyzing communication system latency (802), (ii) determining whether the latency, as indicated by a frame error rate (FER), is above a threshold (804), and (iii) dropping frames *at different fixed rates* (806, 808) based on the determination from (ii) (e.g., See Yao at Figure 8, steps 802-808, and also Col. 19, line 49 – Col. 20, line 41).

Communication system latency may be incidentally related to the rate or probability of frames being "silent", or not including data. However, the threshold used in step 804 of Figure 8 is not established to ensure that dropped frames are silence frames, but is rather selected as part of a probabilistic packet dropping process based on an associated error rate (e.g., See Yao at Col. 8, line 62 to Col. 9, line 3). Basically, a frame error rate (FER) is compared with the threshold to determine a rate at which to drop packets. Packets are then dropped in a "blind" fashion, at the selected rate (e.g., See Yao at Col. 10, line 67 to Col. 11, line 11, and also Col. 19, line 49 – Col. 20, line 41). Thus, Yao simply relies on the assumption that "more" low rate frames (which are not necessarily "silence" frames, e.g., see Yao at Column 8, line 62 to Column 9, line 3.) will be dropped when FER is above the threshold than when FER is below the threshold.

Any dropped frames, irrespective of whether the rate is lower (e.g., 806 of Figure 8) or higher (e.g., 808 of Figure 8), are based solely on a probabilistic value associated with the selected rate. Thus, if the drop rate is 1 out of every 100 packets, the system of Yao counts up to 100, drops a packet, counts up to 100 again, drops another packet, and so on (e.g., See example provided by Yao at Col. 10, line 66 to Col. 11, line 11). This has nothing to do with whether a particular dropped packet is a silence packet, but merely whether the packets, in general, are expected to include more or less low rate frames, as indicated by the FER. It will be appreciated that this process could drop a media frame that includes data as readily as a low rate frame that includes less data. It is also possible that each dropped frame could be a non-silence frame, again, because frame-dropping in Yao is based on a fixed, rate-dropping schedule, and not a characteristic of any particular frame (i.e., whether the frame is a silence frame).

The arguments presented above were previously provided to the Examiner (e.g., See Applicant's response filed on 11/26/07, and also the Appeal Brief filed on 7/18/2008). In the Examiner's response to arguments, the Examiner asserted that "[o]ne having ordinary skill in the

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art would recognize improving channel quality and latency would be possible with/by determining number of silence frames and Yao clearly discloses that dropping silence frame at rate of 1 frame dropped per hundred frames" (e.g., See Pages 2-3 of the 3/5/2009 Office Action). However, as discussed above, while Yao indeed discloses counting frames to determine which hundredth frame to drop, these frames are not necessarily silence frames. <u>Accordingly, the Examiner's indication that *silence* frames are dropped at a rate of 1 frame per hundred is a clear mischaracterization of Yao because Yao does **not** disclose that the dropped frame is actually a silence frame.</u>

In view of the above remarks, Applicant respectfully submits that Yao cannot disclose or suggest "evaluating the stream of media to identify the one or more silence frames" and "automatically suppressing the one or more identified silence frames from the received stream of media" as recited in independent claim 1 and similarly recited in independent claims 7, 13 and 19. Rather, the suppression of frames is based on the selected frame-dropping rate, and not based on whether an actual silence frame is present. In other words, it is possible that the methodology of Yao could miss any silence frames that are present if any silence frames do not align with the selected frame-dropping rate, as discussed above.

As such, claims 2-6, 8-12, 14-18, 20-25, 27, 29, 31 and 33-36, dependent upon independent claims 1, 7, 13 and 19, respectively, are likewise allowable Yao at least for the reasons given above with respect to independent claims 1, 7, 13 and 19, respectively.

Accordingly, Applicant respectfully requests that the Examiner withdraw this art grounds of rejection at least for the reasons presented above.

<u>3.   The Examiner's position that suppressing silence frames can be achieved without dropping silence frames is not reasonable.</u>

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In the Advisory Action, the Examiner has indicated that:

... the claim language [is] directed towards suppressing the silence frame [is] not dropping the silence frame. Therefore, applicant assigned representative is clearly mixing up two different arguments.

(e.g., See Continuation Sheet of 4/14/2008 Advisory Action.)

Applicant respectfully disagrees with the Examiner. The word "suppressing", in the context of the claims, means reducing. In other words, the number of silence frames is being reduced, in claim 1, for example. Each example from the Specification supports this interpretation (e.g., see [0037] of the Specification, and any of FIGS. 5-7). Each example from the Specification further describes reducing the number of silence frames by dropping or puncturing certain silence frames from a stream of media (e.g., see [0037] of the Specification, and any of FIGS. 5-7).

The Examiner actually cites to Yao in attempting to interpret the claim term "suppressing", but this is clearly facially improper. The claims should be read in light of the Specification. Just from a common sense standpoint, it is not clear how silence frames can be suppressed, or reduced, within a data stream without dropping at least one silence frames from the data stream.

Applicant notes that the Examiner did not raise this issue in the 3/5/2009 Office Action. Accordingly, in an effort to reduce the number of issues disputed in a future Appeal of this case, it is respectfully requested that, if the Examiner agrees with Applicant at least on this point, the Examiner state so clearly in a response Action so that this issue does not need to be addressed further.

4. 35 U.S.C. § 102(e) rejection to Yao is improper even based on the Examiner's own assertions

The Examiner's rationale related to what one of ordinary skill in the art would recognize (i.e., with regard to how to modify Yao to achieve claimed invention) **is facially inappropriate in a 35 U.S.C. § 102(e) rejection**. In a proper 35 U.S.C. § 102 rejection, a single reference must be asserted, with additional references or teachings only being relevant to show an inherent feature that is not explicitly set forth in the single reference. The Examiner states "[0]ne having ordinary skill in the art would recognize improving channel quality and latency would be possible with/by determining number of silence frames" (e.g., See Pages 2-3, Response to Arguments, of the 3/5/2009 Office Action). However, nowhere in Yao does Yao actually disclose determining the number of silence frames, or even determining any particular silence frame. Thus, this assertion regarding the alleged recognition of one of ordinary skill in the art appears to be based on obviousness (i.e., on what one of ordinary skill in the art would recognize, not upon what is actually disclosed in Yao) rejection cannot satisfy the requirements of 35 U.S.C. § 102 and **must** be withdrawn.

Accordingly, Applicant respectfully requests that the Examiner withdraw this art grounds of rejection for at least this additional reason.

5.   Yao does not disclose or suggest determining whether one or more silence frames occur between successive media or non-silence frames as recited in dependent claims 33-36

In Applicant's response filed on 11/26/2007, claims 33-36 were added. Claim 33, for example, further recited the step "determining whether the stream of media includes one or more silence frames between successive media frames" and suppressing silence frames based on this determining step. This limitation is similarly recited within claims 34-36. The Examiner alleges that claim 33 is anticipated by Yao at Columns 10 line 55 – Column 50 (e.g., See Page 10 of the 3/5/2009 Office Action). However, this section of Yao merely describes different embodiments

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where frames are dropped at predetermined, fixed rates (e.g., see Yao at Col. 10, lines 66-67, Col. 11, lines 16-18, Col. 11, lines 25-27, Col. 11, lines 51-52), or at a variable rate (i.e., based on some type of formula, e.g., see Yao at Col. 12, lines 30-31). <u>This section of Yao does not determine whether silence frames occur "between successive media frames", nor does this section imply any such teaching.</u>

Accordingly, Applicant respectfully requests that the Examiner withdraw this art grounds of rejection as it relates to claims 33-36 for at least this additional reason.

Reconsideration and issuance of the present application is respectfully requested.
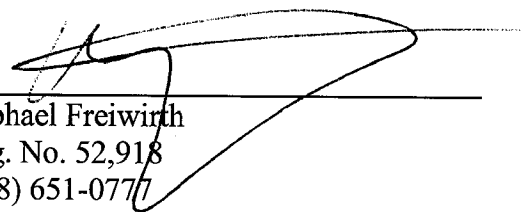
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Conclusion

In light of the arguments and/or amendments contained herein, Applicant submits that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

Dated: June 5, 2009   By: _____

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